

Measurement of Transactional and Transformational Leadership: Validity and Reliability in Sri Lankan Context

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ABSTRACT

Among the various leadership behaviors explored, transactional and transformational leadership behaviors continue to attract the interests of researchers. This interest ranges from examining the effect of this leadership dichotomy on various organizational and individual outcomes and, to testing of the goodness of measure on the transactional and transformational leadership behavior. However, testing validity and reliability of the measures for transactional and transformational leadership mainly focus on western context while similar effort in Sri Lanka context is relatively scant. The purpose of this paper is to validate the conceptualization of transactional and transformational leadership in the Sri Lankan Context. Data were gathered through a survey by using a structured questionnaire from 136 Sri Lanka public sector employees. Factors analysis, correlation, and reliability analysis were conducted to test the validity and reliability. Implications regarding the goodness of measure were discussed and major issues of measurement in Sri Lankan context were presented.

Keywords: Transactional, transformational leadership, measurement, reliability, construct validity, discriminant validity

INTRODUCTION

Leadership and leadership styles in particular have been subjected to scrutiny

by researchers not only in the field of management but also in other fields of social science. Leadership is defined as a process of influencing others to understand and agree about what need to be done and how to do it, and the process of facilitating individual and collective efforts to achieve objectives (Yukl, 2006). One of the factors for attributing to leadership such a magnitude

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of importance is that leadership plays a central role in organizations irrespective of their nature. Effective leadership makes a contribution to the organizational effectiveness by enhancing job satisfaction (Wofford *et al.*, 2000), organizational commitment (Loki and Crawford, 2004), organizational citizenship behavior (Wang *et al.*, 2005), and employee loyalty. These leadership outcomes have resulted in the improvement of the performance from individual employees (Limsila and Ogunlana, 2008) and groups (Bass *et al.*, 2003) in organizations. Furthermore, effective leadership results in supportive organizational culture, employee innovation and creativity among employees (Parry and Proctor-Thomson, 2003), promote team efficacy (Arnorld *et al.*, 2001) and organizational learning (Zagorsek *et al.*, 2009). Wart (2003) posited that leadership provides a sense of cohesiveness, personal development, resulted in higher level of satisfaction among employees, sense of direction and vision, alignment with the environment, innovation and creativity and productive culture.

Even though, large numbers of studies on leadership have been carried out, studies to testing the measurements on leadership are lagging behind. This is especially evident with respect to the measurement of transactional and transformational leadership in Sri Lanka context. Nguni *et al.* (2006) claimed that conceptualization of transactional and transformational leadership has been confined to the western countries than in the developing countries.

Though transactional and transformational leadership are relevant in most situations (Bass, 1997) universal relevance does not mean that transactional and transformational leadership equally likely to occur in all situation (Yukl, 2006). Contingent factors may alter the leadership behavior in different contexts (Currie and Lockett, 2007). Therefore, assessing the goodness of measure (Validity and Reliability) of leadership styles, namely transactional and transformational leadership measurement in different countries is recommended by some researchers (Lo *et al.*, 2009). It is because of the fact that leadership is largely governed by social, religious, and cultural, prevailing beliefs and attitudes in countries (Kennedy and Mansor, 2000).

Based on the above claims, testing of goodness of measure of transactional and transformational leadership is warranted, given that cultural, social and religious context in Sri Lanka is different to a significant proportion. The purpose of this study is empirically to test the goodness of measure of transactional and transformational leadership constructs form MLQ 5x rater version in the Sri Lankan context. This could lead to a better understanding of the dimensionality of the dual leadership constructs, facilitating further validation of these constructs.

LITERATURE REVIEW

Leadership style or leadership behavior has been the central focus in most of the leadership studies from the beginning of the leadership studies. Numerous studies have

been carried out to examine the components of leadership and leadership effectiveness (Atwater *et al.*, 1999). This has resulted in an accumulation of knowledge covering many constructs, variables and factors associated with leadership and leadership effectiveness. Leadership behavior is standing as prominent determinant of leadership effectiveness (Jaussi and Dionne, 2004). This is evident with the fact that almost all leadership theories have incorporated leadership behaviors in their explanation of leadership effectiveness. Among the vast array of leadership behaviors such as, charismatic leadership (Conger, 1989), visionary leadership (Sashkin, 1988), authentic leadership, servant leadership, spiritual leadership, shared leadership, and ethical leadership (Avolio *et al.*, 2009), transactional and transformational leadership are dominant in leadership studies over the past years. This study used the Bass's conception of transactional and transformational leadership since these dual leadership has been the mostly researched and validated conception of leadership in leadership literature (Kirkbride, 2006) in assessing the leadership behavioral construct in Sri Lankan context.

Transactional Leadership

The concept of transactional leadership along with transformational leadership was first developed by Burns (1978) and further improved by Bass (1985). Transactional leadership concerns the exchange relationship between the leader

and followers. Transactional leaders clarify his performance expectations and exchange rewards for performance (Zagorsek, *et al.*, 2009). They usually operate within the boundaries of the existing system or culture, have preference for risk avoidance, and emphasize process rather than substance as a means for maintaining control (Lowe *et al.*, 1996). Transactional leaders use instrumental compliance; subordinates accept the direction of the leader so that they receive rewards or avoid punishment, in influencing their subordinates (Yukl, 2006). Webb (2007) posited that transactional leaders use contingent rewards for motivating followers. In the initial concept of transactional leadership, there were two components namely, contingent rewards and passive management by exception. Bass and associates later expanded the conception of transactional leadership to include three components. These components were contingent rewards, active and passive management by exception (Antonakis *et al.*, 2003).

Contingent rewards refers to leader's behaviors that focus on clarifying roles and tasks requirements and providing followers with material and psychological rewards contingent on the fulfillment of contractual obligations. Management by exception (Active) refers to the active vigilance of a leader whose goal is to ensure that standards are met. Management by exception (Passive) refers to leader's only intervening after noncompliance has occurred or when mistakes have already happened.

Transformational Leadership

Transformational leadership transforms and motivates followers by creating an exciting new vision, encouraging followers to move beyond their own interest for the sake of the organization, and stimulating the follower's higher order needs (Bass, 1985). Transformational leaders use internalization; bounding organizational goals with subordinate's personal values and attitudes as his influencing strategy (Bono and Judge, 2003). Webb (2007) claimed that transformational leaders motivate their employees through charisma and intellectual stimulation. Transformational leadership is likely to thrive in flatter, low power distance and decentralized decision making process while transactional leadership emerge in bureaucratic and high power distance organizational contexts. Bass's initial conception of transformational leadership included four components namely, charisma, inspirational motivation, intellectual stimulation, and individualized consideration. However, Antonakis *et al.* (2003) proposed five components as follows:

1. Idealized influence (Attribute) refers to the socialized charisma of the leader, whether the leader perceive as being confident and powerful, and whether the leader is viewed as focusing on higher-order ideals and ethics.
2. Idealized influence (Behavior) refers to charismatic actions of the leader that are concerned on values, beliefs and sense of mission.
3. Inspirational motivation highlights the ways leader energizes their followers by viewing the future with optimism, stressing ambitious goals, projecting an idealized vision, and communicating to followers that the vision is achievable.
4. Intellectual stimulation indicates the leader actions that appeal to follower's sense of logic and analysis by challenging followers to think creatively and find solutions to difficult problems.
5. Individualized consideration refers to leader's behavior that contribute to follower satisfaction by advising, supporting, and paying attention to the individual needs of followers, and thus allowing them to develop and self actualize.

Though both transactional and transformational leadership are said to be important, their effect on organizational variables (Nguni, *et al.*, 2006), and mechanism of influence stand distinct to each other, measurement these dual leadership separately is required. Therefore, this study was indented to assess the goodness of measure of both leaderships in Sri Lankan context.

Measurement of Transactional and Transformational Leadership

Multifactor Leadership Questionnaire (MLQ) widely is used in measuring the transactional and transformational leadership in many leadership studies. Bass's (1985) initial MLQ included five factors; charisma, individualized consideration,

intellectual stimulation, contingent rewards and management by exception. Bass and Avolio (1992) developed MLQ 5R form consisting of factors of charisma, inspirational motivation, intellectual stimulation, individualized consideration, contingent reward and management by exception. Though there are few forms of MLQ, the form 5X comprising nine component factors of Avolio *et al.* (1995) model, is largely adapted. The MLQ form 5X contains 45 items out of which 36 items are used for assessing the nine factors namely, idealized influence (attribute), idealized influence (behavior), inspirational motivation, intellectual stimulation, individualized consideration, contingent rewards, management by exception (active), management by exception (passive), laissez-faire leadership and three leadership outcomes. However, this study had excluded the laissez-faire leadership factor for the conception of leadership since it represents non leadership situation in consistence with other studies (Bycio *et al.*, 1995). On the other hand, the conceptual distinction between laissez-faire and management-by-exception (passive) is not clear (Den Hartog *et al.*, 1997).

Although substantial support was found for the goodness of the measurement (Items of 5X) for example, (Avolio *et al.*, 1995; Bass and Avolio 1997; Antonakis *et al.*, 2003), some studies have generated conflicting claims on the factor structure of the MLQ in different countries. Hater and Bass (1985) found support for only six factors namely charisma, intellectual stimulation,

individualized consideration, contingent rewards, management by exception active and passive in USA. Bycio *et al.*, (1995) had validated five factors in Canada and five different factors model in Singapore (Koh *et al.*, 1995). Different factor structure of MLQ was reported in other countries such as Netherlands, (Den Hartog, *et al.*, 1997), Germany (Geyer and Steyrer, 1998), Australia (Carless, 1999) and Malaysia (Lo *et al.*, 2009). Furthermore, factorial validity of the nine factors model of the MLQ 5X form has also been confirmed (Muenjohn and Armstrong, 2008).

Given these mixed results, testing the goodness of the measurement for transactional and transformational leadership is required before it is used in different context especially in different countries or in different national cultures (Antonakis, *et al.*, 2003). As Van De Vijver and Hambleton (1996) had argued, just because measuring instrument is valid and reliable in one culture, it cannot be assumed that the same psychometric properties will prevail in another culture. Booth (1995) posited that reliability and the validity are the most important aspects of an instrument to be tested before using it for data collection. On the other hand, MLQ 5X has been criticized over some of the areas of its measurement factors (Muenjohn and Armstrong, 2008). This may result in change of the items and factor structures of the transformational and transactional leadership measure.

Studies have been conducted by using the self-rating measurement of transactional and transformational leadership (Daughtry,

1995) and, followers rating measurement (Antonakis *et al.*, 2003; Atwater and Yammarino, 1992). However, the validity and reliability of these measurements are needed to be tested for studies using followers rating than the self rating studies given the fact that some contextual factors involve in observing and assessing the leadership behavior. Research is warranted to further examine of the underlying factor structure of transactional and transformational leadership (Muenjohn and Armstrong, 2008). This could result in refinement and the development of the measurement of transactional and transformational leadership with a universal validation (Avolio & Bass, 1999). Given the argument that properties of transactional and transformational leadership instruments can be affected by the context where the leadership is observed and evaluated (Antonakis *et al.*, 2003), testing the goodness of measure of these constructs in different context, is required.

The present study uses the items related to the component behaviors of transactional and transformational leadership other than laissez-faire factor since laissez-faire represents a non leadership context, to test the validity and reliability of the measurement.

Reliability

Reliability is related to the dependability of the measurement that is the extent to which the instrument generates the same results on repeated trials (Babbie and Mouton, 2001). In other words, it represents the stability

or consistency of scores of an instrument over time or respondents. Reliability also measures the degree to which the test score indicates the status of an individual item on the factors defined by the test as well as the degree to which the test score demonstrates individual differences in these traits (Cronbach, 1951). Reliability measures the correlation between the test score and hypothetical true value of the variable. It is largely the Cronbach's Alpha which is used by the researchers as reliability coefficient (Cronbach, 1951). Cronbach's Alpha measures the relation of the individual item variance to the variance of the entire scale. If the sum of the individual item variance is close to the variance of the entire scale, Alpha value comes to closer to zero, representing that items in the scale are not correlated or they are not measuring the same construct. On the other hand, if the variance of the entire scale is much larger than sum of the variance of the individual items, Alpha value is close to one.

Validity

Validity of an instrument is defined as the degree to which that particular tool measures what it is supposed to measure rather than different phenomena. In other words, the instrument should be correct in relation to the objectives for which it is used. There are various forms of validity associated with an instrument such as criterion validity, content validity, construct validity (Camines and Zeller, 1990). However, it is the construct and discriminant validity which is mostly

considered in social sciences though Cronbach and Meehl (1955) claimed that only construct validity is relevant in social science.

Construct Validity

Construct validity is the extent to which an instrument measures the concept with which it purports to measure. A high level of construct validity indicates that operationalization of the constructs closely matches the constructs or variables (Chen and Rossi, 1987). It is through factor analysis that researchers assess the construct validity of the measure for assessing the constructs. Factor analysis can be defined as a process of examining the correlations among a set of observed variables in order to gather information on their underlying latent constructs (Byrne, 2010). In an instrument testing context, it is an examination of the correlations among items by identifying the number of shared factors that account for the observed correlations. In the present study, the Exploratory Factor Analysis (EFA) with principle component analysis, and varimax rotation were used to measure the construct validity of the MLQ 5X form with 33 items.

Discriminant Validity

Discriminant validity is that variables used to measure the different phenomenon are not perfectly correlated. In other words, testing construct validity comes down to confirming that variables measuring the same concepts converge and differ from variables that measure different construct. Discriminant

validity further refers to the extent to which measures of two different construct are distinctive in terms of correlation between the items of the respective measures. Given that the factor loadings are also the correlation coefficients between the items and the construct, the level of the discriminant validity can be assessed with the component matrix of the factor analysis.

METHODS

Since, this study involves a testing of measurements, it is a survey and a cross sectional study in type. Unit of analysis is the individual employees belonging to the occupational category of the Clerk and Related employees of the 31 public sector organizations in Sri Lanka. Selection of the public sector organizations as the context of this study was prompted by the lack of such studies in this sector. No pilot study was carried out since this study is involved with testing of goodness of a standard measure (MLQ) just in different context. However, two experts reviewed the instrument for its appropriateness of wording and items sequence to the Sri Lankan context.

Sample

The purpose of the study is to test the reliability and validity of measure of transformational and transactional leadership in Sri Lankan context. A sample of 200 employees from the 31 public sector organizations was drawn with proportionate stratified random sampling method since the number of employees of these organizations differs in proportion to the total number of

employees in the population. Questionnaires were distributed to the respondents by post containing the questionnaire and the stamped envelope so that they can mail completed questionnaire to the researcher.

85 questionnaires were returned in a period of three weeks. A reminder letter was sent to the respondents and another 65 questionnaires were collected later. Total number of responses was 145 questionnaires and nine questionnaires were excluded since they contained missing data based on the criteria that the amount of missing data is not exceeding 9% of total questionnaires returned and will be used for further analysis (Byrne *et al.*, 2004). This study recorded a nearly 68% of response rate. It seems that the external validity of the finding of this study can be held high with this higher response rate.

65.7% of the sample was male while 34.3% are female employees. The sample respondents represent mostly the middle age category which is 74.2% of the sample. Further, the sample is consisted of employees with diverse educational background. The majority (45.8%) had G.C.E. (A/L) qualification; 27.6% and 10.5% of the respondents had a graduate and postgraduate qualification respectively. Large percentage of the sample (58.7%) had a work experience of ranging from 5 to 10 years. The proportion of respondents' with less than 5 years work experience was 24.4% and 16.6% had 10 to 15 years work experience.

Questionnaire Development

The questionnaire comprised of 33 items adapted from the MLQ 5 x forms which were scaled with five-point Likert scale. Items are rated with anchors labeled, as 0= Not at All, 1= One in a While, 2= Sometimes, 3= Fairly Often and 4= Frequently if Not Always. Items were worded with some modification so that it is relevant to the context. For an example, both he/she were included to ensure the gender equality. Further, two items were broken down as four separate items so that respondent can understand the issue.

The questionnaire was prepared in English given the facts that first, meaning of the original items can be presented with minimum distortion and second, the competence level of respondents in English.

Data Analysis

Factor analysis and reliability analysis were conducted to test the validity and reliability of the measures for transactional and transformational leadership. Exploratory Factor Analysis (EFA) with orthogonal varimax rotation, which is the most common method used in EFA, with the ability of dividing the variance of items across maximum factor structure, was used to assess the construct validity of the instrument being adapted to operationalize transactional and transformational leadership.

Accordingly, principal component analysis was done on the 33 items included in the instrument.

RESULTS AND DISCUSSION

Reliability

The reliability coefficient (Cronbach's Alpha) for the transformational leadership components was 0.70 for idealized influence (Attribute), 0.80 for intellectual stimulation, 0.86 for individual consideration, 0.87 for inspirational motivation and 0.89 for idealized influence (Behavior). However, the initial value of the Alpha for individualized consideration recorded is 0.60 with all four items which has a value of below the acceptable level of .70 Alpha value (George & Mallery, 2003). With the deletion of item C₁₁, the alpha value has improved up to 0.86 which is an acceptable value (Sekaran and Bougie, 2009). The reliability coefficient values for transactional leadership components were 0.70, 0.78, and 0.90 for management by exception (active), contingent rewards, and management by exception (passive) respectively. Hence, it can be concluded that both measures of transformational and

transactional leadership possess adequate degree of reliability in measuring intended constructs in the Sri Lankan Context. (Table 1)

It is the reliability of the overall measurement which is particularly interested in the present study. The Cronbach Alpha value for the overall instrument with 32 items, excluding the first item of idealized influence (Attribute), recorded a value of 0.80 which is a acceptable level.

As an extension to the testing of reliability of instrument, the hypothesis for all items in the scale came from a population with the same mean and variance was tested by using the model goodness of fit test (Friedman's test). Based on the observed significant level of the test, it has to either reject or not reject the null hypothesis that scale comes from a population with same mean and variance. Since the Friedman's Chi-Square value ($\chi^2 = 1547.68$, $p < .000$) is significant with respect to the present study, the null hypothesis is rejected, meaning that

TABLE 1
Cronbach Alpha Reliability Coefficients of MLQ (5X) Rater version

Leadership Factor	Mean	Standard Deviation	Cronbach Alpha	Evaluation (Sekaran & Bougie, 2009)
Idealized Influence (Attribute) (IA)	12.06	1.92	.70	Acceptable
Idealized Influence (Behavior) (IB)	12.33	2.20	.89	Good
Inspirational Motivation (IM)	11.60	1.93	.87	Good
Intellectual Stimulation (IS)	12.52	1.69	.80	Good
Individualized Consideration (IC)	8.97	1.72	.86	Good
Contingent Rewards (CR)	12.70	1.44	.78	Acceptable
Management by exemption –Active (MEA)	7.12	2.64	.70	Acceptable
Management by exemption –Passive (MEP)	8.18	3.75	.91	Good

data comes from a population with different means and variances. (Table 2)

Validity

The initial factor analysis has extracted 8 factors from the 32 items. The results clearly supported the three factor structure of the transactional leadership and five factor structure of the transformational leadership. However, the first items of the idealized influence (attribute), individual consideration of transformational leadership and management by exception of transactional leadership were dropped due to low loadings (Less than .50) and high loadings with other factors as suggested by Hair *et al.* (2006). However, other items recorded a satisfactory level of factor loading values ($>.5$) as of Hair *et al.* (2010).

The Kaiser-Meyer-Olkin Measure (KMO) which compares the sizes of observed correlation coefficients to the size of the partial correlation coefficients recorded a value of 0.70 which is an acceptable level (Kaiser and Rice, 1974), and the Bartlett's test of sphericity was

significant with $\chi^2=2635.359$, $P<.000$. The eight factor solution extracted with eigenvalues greater than one explained 76% of the total variance. (Table 3)

The component matrix relating to each construct of the transactional and transformational leadership is shown in the Table V (Below). It indicates the factor loading for each item for the each eight constructs of transactional and transformational leadership. (Table 4)

Based on the Table V, items supposed to be measuring a particular factor, are loaded high with that factor than the other factors, indicating high level of discriminant validity of the measure. Accordingly, all items measuring idealized influence (attribute) (IA) scored a range of factor loading from .885 to .828. Four items of idealized influence (Behavior) (IB) had a factor loading ranging from .892 to .815. Items of intellectual stimulation (IS) were loaded between .852 to .689 range and items of inspirational motivation (IM) were loaded with .887 to .776 range. Only three items of the individual consideration received the acceptable factor loadings (.902-.825).

TABLE 2
ANOVA with Friedman's Test

	Sum of Squares	df	Mean Square	Friedman's Chi-Square	Sig
Between Respondents	168.301	135	1.247		
Between items	1188.785	31	38.348	1547.679	.000
Residual	2049.559	4185	.490		
Total	3238.344	4216	.768		
Total	3406.645	4351	.783		

Grand Mean =2.76

a. Kendall's Coefficient of Concordance $W=.34$

TABLE 3
Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.002	16.673	16.673	5.002	16.673	16.673
2	3.498	11.659	28.331	3.498	11.659	28.331
3	3.232	10.772	39.103	3.232	10.772	39.103
4	2.906	9.686	48.789	2.906	9.686	48.789
5	2.567	8.556	57.346	2.567	8.556	57.346
6	2.080	6.933	64.278	2.080	6.933	64.278
7	1.910	6.368	70.646	1.910	6.368	70.646
8	1.543	5.144	75.790	1.543	5.144	75.790
9	.799	2.663	78.453			

In case of transactional leadership, four items of contingency rewards (CR) and management by exception (Passive) (MEP) had acquired factor loading .867-.672, and .932-.807 respectively. Three items of the management by exception (Active) (MEA) were loaded .897 to .811 factor loading range.

This is in congruence with similar studies where discriminant validity was examined (Lo *et al.*, 2009). Further, Similar results have been found in other studies on overall validity of transactional and transformational leadership (Kelloway *et al.*, 2000).

DISCUSSION AND CONCLUSION

This study is intended to test the goodness of measure for transactional and transformational leadership construct in the Sri Lankan context. The purpose for testing the measurement of transactional and transformational leadership construct will add to the contextual validity in

different context. It can be an impetus for further leadership studies in the Sri Lankan context given the fact that more research on transactional and transformational leadership required for its conceptual clarity and validity (Bruins, 1999).

It was revealed that eight factor model of transactional and transformational leadership are valid in the Sri Lankan context. Accordingly, the five leadership factor of transformational leadership, namely, idealized influence (Attributes), idealized influence (Behavior), inspirational motivation, intellectual stimulation and individual consideration, and three transactional leadership dimensions namely, contingent rewards, management by exception (active) and management by exception (passive) were found to be significant explaining the variance of the leadership constructs examined.

The original item structure of the nine factor model was not totally consistent with the factor model of the present study given

TABLE 4
Rotated Component Matrix

Items	Component							
	1	2	3	4	5	6	7	8
MEP1	.932	-	-	-	-	-	-	-
MEP2	.894	-	-	-	-	-	-	-
MEP3	.846	-	-	-	-	-	-	-
MEP4	.807	-	-	-	-	-	-	-
IA1	-	.885	-	-	-	-	-	-
IA2	-	.856	-	-	-	-	-	-
IA3	-	.847	-	-	-	-	-	-
IA4	-	.828	-	-	-	-	-	-
IB1	-	-	.892	-	-	-	-	-
IB2	-	-	.876	-	-	-	-	-
IB3	-	-	.830	-	-	-	-	-
IB4	-	-	.815	-	-	-	-	-
IM1	-	-	-	.887	-	-	-	-
IM2	-	-	-	.853	-	-	-	-
IM3	-	-	-	.852	-	-	-	-
IM4	-	-	-	.766	-	-	-	-
CR2	-	-	-	-	.867	-	-	-
CR3	-	-	-	-	.794	-	-	-
CR1	-	-	-	-	.692	-	-	-
CR4	-	-	-	-	.672	-	-	-
IS1	-	-	-	-	-	.852	-	-
IS2	-	-	-	-	-	.820	-	-
IS3	-	-	-	-	-	.783	-	-
IS4	-	-	-	-	-	.689	-	-
IC4	-	-	-	-	-	-	.902	-
IC3	-	-	-	-	-	-	.879	-
IC2	-	-	-	-	-	-	.825	-
MEA2	-	-	-	-	-	-	-	.897
MEA3	-	-	-	-	-	-	-	.848
MEA4	-	-	-	-	-	-	-	.811

Note: Factor loading less than .6 has been suppressed.
Extraction Method: Principle Component Analysis
Roration Method: Varimax with Kaiser Normalization

(IA: Idealized Influence (Attribute), IB: Idealized Influence (Behaviour), IS: Interlectual Stimulation, IM: Inspirational Motivation, IC: Individualized Consideration, CR: Contingent Rewards, MEA: Management by Exemption (Active), MEP: Management by Exemption (Passive)

the fact that several items had to be dropped due to low loading or double loading. Therefore, the finding of this study exhibits the differences on the dimensionality of transactional and transformational leadership in a different context from

where it was mostly tested. However, the eight factor structure measurement was consistent to the factor structure in other studies in different context with confidence. Therefore, measurement of transactional and transformational leadership can be

used reliably in future research in Sri Lanka. It seems that transactional and transformational leadership behavior of public sector managers' stand more or less parallel to the behavior of leadership in other context.

Anyway, it is proposed to test, as a future study, the goodness of the measure of transactional and transformational leadership with a larger sample including other occupational groups and sectors so that broader generalization can be made on the dimensionality of these dual leadership in Sri Lankan context.

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